stewardship program in a university hospital of a developing country

P. Titanti, V. Berdiñas, J. Ramos, L. Manevich, L. Barcelona, P. Rios, G. Lopardo*

Hospital B Houssay, Buenos Aires, Argentina

Background: In an era of growing concern about bacterial resistance and hospital costs, limiting the use of broad spectrum antibiotics is important. The purpose of this study is to evaluate the impact of restriction policy as part of an antimicrobial stewardship program.

Methods: The study was conducted in a 140-bed university hospital of a developing country. Tools of the program were development of guidelines of antimicrobial therapy for common community and hospital-acquired infections and education to improve antimicrobial prescription. During the first period of the program we implemented a policy of prior approval for selected antibiotics. Every day pharmacists reviewed prescriptions and the team discussed with prescribing physicians to accomplish with hospital guidelines. After one year of implementation of the program, we stopped the restriction policy and we kept on working with the other tools of the program. To assess if cessation of restriction was associated with an increase in antimicrobial consumption, we measured antibiotic consumption during the first year (period 1) and during one year after we stopped restriction (period 2). Antimicrobial consumption was measured by Defined Daily Dose (DDD) normalized by 1000 bed-days.

Results: During the period 2 antibiotic consumption of ceftriaxone, ceftazidime and vancomycin decreased; it remained unchanged for piperacillin-tazobactam while cefepime, imipenem and colsitin increased

	Period 1	Period 2	Percentage of Increase/ Decrease (%)	P value
Antibiotic	DDD per 1000 beddays			
Cefepime	53,73	80,97	+50,7	<0.01
Ceftazidime	17,56	12,57	-28,4	<0.01
Ceftriaxone	40,00	32,07	-19,8	<0,01
Colistin	9,25	19,50	+110,8	<0,01
Imipenem	14,11	21,65	+53,4	<0,01
Piperacillint-azobactam	30,36	30,19	-0,05	0,9
Vancomycin	44,31	36,98	-16,5	<0,01

Conclusion: Antibiotic consumption of 4 out of 7 agents did not increased after we stopped restriction policy, while some agents suffered an increased; these agents were those mainly prescribed in intensive care unit associated to an increase in isolation of multidrug resistant *Acinetobacter sp*. Programs aimed to improve antibiotic prescription accompanied by measurement of antibiotic consumption may help to focus the program in some particular agents and areas of the hospital, and also to reinforce other infection control

doi:10.1016/j.ijid.2010.02.1928

50.003

Utilization of activated protein C (Xigris) in a large teaching hospital- Possible overuse and complications

M.R. Wallace, C. Arinyedokiari*, B. Dattani

Orlando Health, Orlando, FL, USA

Background: The role of drotrecogin alpha (Xigris) in the treatment of septic shock remains controversial. The recent literature suggests there is little or no benefit, and definite risk, for patients whose APACHE II scores are less than 25. A 2007 Cochrane analysis stated that the benefit of Xigris in patients with higher APACHE II scores was supported only by ''very weak evidence''. We reviewed our institutional experience with this agent.

Methods: Retrospective evaluation of the records of 73 patients receiving Xigris at an 808-bed teaching hospital from April 2003 to June 2008. APACHE II scores, demographic data, clinical outcomes, 28-day mortality, and incidence of bleeding complications were assessed.

Results: Forty-five of 73 (61%) patients had an APACHE II score $\geq$25. The overall incidence of bleeding was 18 of 73 (25%); in 8 cases, severe or life-threatening bleeding occurred. Six of 18 (33%) patients with bleeding during the infusion had APACHE II scores < 25, with 4 of those 6 cases described as severe. The 28-day mortality among all patients was 25 of 73 (34%), with 19 of 25 (76%) having APACHE II scores $\geq$25 and 6 of 25 (24%) having APACHE II scores < 25. Relative to the APACHE II scores, the 28-day mortality was 19 of 45(42%) among patients with an APACHE II score $\geq$25 and 6 of 28 (21%) among patients with an APACHE II score < 25.

Conclusion: Thirty-nine percent of patients receiving Xigris had APACHE II scores less than 25; its value in these patients is unproven. The incidence of bleeding during infusion of this drug is significant and is associated with higher APACHE II scores, but severe bleeding occurred even among those with lower APACHE II values, who were less likely to derive any benefit from its use. Xigris may be significantly over utilized, and its use is not without risk.

doi:10.1016/j.ijid.2010.02.1929

50.004

Antimicrobial prophylaxis for transrectal ultrasound guided biopsy of prostate: a comparative study between single dose of Gentamicin vs. Ofloxacin

B. Chazan*, G. Zelichenko, Y. Shental, H. Edelstein, R. Raz

Ha Emek Medical Center, Afula, Israel

Background: Prostate cancer is the most common malignancy in men, and has been increasing in incidence in the Western world. The gold standard for diagnosing prostate cancer is a transrectal US-guided biopsy. One of the complications of this procedure is the development of urinary tract infections. It has been shown that treatment with prophylactic antibiotics prior to the procedure reduces the rate